REMARKS

The Office Action mailed on August 9, 2006 has been received and its contents carefully considered. Claims 1-13 remain pending. Applicants note with appreciation that the Examiner has indicated that claims 6, 7, 11, and 12 would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims. At this point, Applicant has not elected to do this, because Applicant believes that all claims are in condition for allowance, for at least the following reasons.

Claim Rejections – 35 USC § 102 and 103

Claims 1-5 stand rejected under 35 U.S.C. 102(e) as allegedly anticipated by Kawada et al. (US Patent No. 6,703,792, hereinafter "Kawada"). With respect to claim 1, the Office Action particularly asserts that Figure 15, col. 15, line 21-27, and col. 16, lines 12-24 of Kawada shows the claimed: a driving method for a plasma display panel (PDP) (100), said PDP comprising a plurality of first common electrodes (even sustain electrodes X2, X4), a plurality of second common electrodes (odd sustain electrodes: X1, X3, X5), a plurality of scanning electrodes (Y1~Y4), a plurality of data electrodes (A), and a plurality of pixel units (101).

Additionally, claims 8-10 and 13 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Kawada in view of De Zwart et al. (US Patent No. 6,512,336, hereinafter referred as "De Zwart"). Applicant respectfully disagrees with the view espoused in the Office Action. Specifically, the Applicant asserts that independent claim 1 recites at least the following claim limitation that the cited reference Kawada fails to teach:

"the pixel units belonging to **a row of odd number are odd pixel units** and are **defined by said second common electrodes and said scanning electrodes**;

the pixel units belonging to **a row of even number are even pixel units** and are **defined by said first common electrodes and said scanning electrodes**."

The claimed embodiments relate to a driving method for a plasma display panel (PDP), and particularly, to a driving method for a PDP with pixel units of odd row and even row defined by the second common electrodes and the first common electrodes respectively, as described in the specification and claimed in the independent claims 1 and 10. That is, **the common electrodes are not used commonly by the pixel units of two adjacent rows**. Notably, the driving method of the present invention includes a reset period, an address period, a sustained period and an erase period upon the PDP stated above.

In contrast, the Kawada discloses a PDP drive unit using the PDP as shown in Fig. 15. However, the pixel units belong to the odd rows and even rows share the common electrodes. That is, **each of the common electrodes defines pixel units of two adjacent rows, odd row and even row**. That is, first common electrodes and second common electrode of Kawada is the same. For example, pixel units of odd rows L1 and L3:

L1 is defined by common electrode X1 and scanning electrode Y1. L3 is defined by common electrode X2 (**not X3**, as asserted by the Office Action, in page 2, lines 5-6 of last paragraph) and scanning electrode Y2.

Further, for the pixel units of even rows L2 and L4:

L2 is defined by common electrode X2 and scanning electrode Y1. L4 is defined by common electrode X3 (**not X4**) and scanning electrode Y2.

Since the pixel units of Kawada are defined by different structure than the claimed embodiments, the driving method for resetting, addressing, sustaining, and erasing in the pixel units of odd rows and even rows are different.

For example, claim 1 of the present application defines a driving method comprising:

> (a) processing a reset operation, providing an odd-field address period and sequentially making each of voltage differences between **said second common electrodes** and the corresponding scanning electrodes larger than a discharge threshold voltage, and selectively inputting the image data to said data electrodes;
>
> (b) providing an odd-field sustaining-discharge period, and inputting a first sustaining discharge pulse and a second sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and **said second common electrodes**;
>
> (c) processing the reset operation, providing an even-field address period and sequentially making each of voltage differences between **said first common electrodes** and said scanning electrodes larger than the discharge threshold voltage, and selectively inputting the image data to said data electrodes; and
>
> (d) providing an even-field sustaining-discharge period and inputting a third sustaining discharge pulse and a fourth sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and **said first common electrodes**.

Since the first common electrodes and the second common electrodes do not define pixel units of two adjacent rows, odd row and even row, the driving method for the first common electrodes and the second common electrodes of the claimed embodiments are different from those of Kawada.

Further, turning to col. 15, lines 21-27 and col. 16, lines 12-24 of Kawada (which were relied on by the Office Action), Kawada actually teaches:

> In the plasma display panel 100 shown in FIG. 15, pixels are indicated by dotted lines only for the display line (display row) L1. For

simplification, the number of pixels of the plasma display panel 100 is set to 48 (=6x8) in terms of monochromatic display. The present invention is applicable to both the color and the monochromatic display, and one color pixel corresponds to three monochromatic pixels.

…

A plasma display panel drive unit using the plasma display panel shown in FIG. 15 includes a drive circuit for supplying each sustain electrode, each scanning electrode and each addressing electrode with a plurality of types of drive voltage pulses for writing predetermined display data in the selected cells, and a control circuit for controlling the sequence in which these drive voltage pulses are supplied. The drive circuit includes an odd/even X sustain circuit (common driver) for supplying the write pulse and the sustain pulse to the sustain electrodes X1 to X5, an odd/even Y sustain circuit (common driver) for supplying a scan pulse and a sustain pulse to the scanning electrodes Y1 to Y4, and an addressing circuit for supplying an addressing voltage pulse to the addressing electrodes A1 to A6.

As can be readily verified, the above-quoted portion of Kawada does not teach the expressly claimed features of:

1. A driving method for a plasma display panel (PDP), said PDP comprising a plurality of first common electrodes, a plurality of second common electrodes, a plurality of scanning electrodes, a plurality of data electrodes, and a plurality of pixel units, ***wherein the pixel units belonging to a row of odd number are odd pixel units and are defined by said second common electrodes and said scanning electrodes, the pixel units belonging to a row of even number are even pixel units and are defined by said first common electrodes and said scanning electrodes, and image data of said pixel units is inputted by said data electrodes***, …

…

(*Emphasis added.*)

It is well-settled law that in order to properly support a rejection under anticipation of 35 U.S.C. § 102, the reference must teach every element of the claim.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Since it has been shown above that the cited Kawada reference fails to teach each and every claim element as required by the independent claim 1, the independent claim 1, as well as all of its dependent claims 2-9, should be deemed allowable.

With respect to independent claim 10, this claim defines:

> 10. A driving method for a plasma display panel (PDP), said PDP having a plurality of first common electrodes, a plurality of second common electrodes, a plurality of scanning electrodes, ***a plurality of data electrodes, and a plurality of pixel units disposed in delta arrangement, wherein the pixel units belonging to a row of odd number are odd pixel units and are defined by said second common electrodes and said scanning electrodes, the pixel units belonging to a row of even number are even pixel units and are defined by said first common electrodes and said scanning electrodes, and image data of said pixel units is inputted by said data electrodes, said method comprising***:
>
> (a) making each of voltage differences between said second common electrodes and the corresponding scanning electrodes larger than a discharge threshold voltage;
>
> (b) sustaining a first positive voltage to each of the second common electrodes, sequentially providing a first pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying a second pulse of a positive voltage to each of said data electrodes according to the image data to be displayed;
>
> (c) sustaining a second positive voltage to each of said address electrode, applying a first alternating-current voltage, a second alternating-current voltage, and a third alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said first alternating-current voltage is out of phase to said second alternating-current voltage, and is in phase to said third alternating-current voltage;
>
> (d) making each of the voltage differences between said first common electrodes and the corresponding scanning electrodes larger than the reset threshold voltage;
>
> (e) sustaining a third positive voltage to each of said first common electrodes, and sequentially applying a third pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying

a fourth pulse of positive voltage to said data electrodes according to the image data to be displayed;

The Office Action rejected claim 10 under 35 U.S.C. § 103(a) as allegedly unpatentable over Kawada in view of De Zwart (US 6,512,336). In advancing this rejection, the Office Action stated: "Kawada teaches generally all as discussed for claims 1-5 above, except for "a plurality of pixel units disposed in delta arrangement …" In fact, claim 10 defines other features and elements that are quite different than claim 1. In this regard, the table below sets out a side by side comparison of the various claim elements. To allege that claim 10 differs by claim one only because of the claimed "plurality of pixel units disposed in a delta arrangement" (as set forth in the preamble) substantially mischaracterizes the proper claim scope and interpretation of claim 10.

Claim 1	**Claim 10**
(a) processing a reset operation, providing an odd-field address period and sequentially making each of voltage differences between said second common electrodes and the corresponding scanning electrodes larger than a discharge threshold voltage, and selectively inputting the image data to said data electrodes;	(a) making each of voltage differences between said second common electrodes and the corresponding scanning electrodes larger than a discharge threshold voltage;
(b) providing an odd-field sustaining-discharge period, and inputting a first sustaining discharge pulse and a second sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and said second common electrodes;	(b) sustaining a first positive voltage to each of the second common electrodes, sequentially providing a first pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying a second pulse of a positive voltage to each of said data electrodes according to the image data to be displayed;
(c) processing the reset operation, providing an even-field address period and sequentially making each of voltage	(c) sustaining a second positive voltage to each of said address electrode, applying a first alternating-

differences between said first common electrodes and said scanning electrodes larger than the discharge threshold voltage, and selectively inputting the image data to said data electrodes; and (d) providing an even-field sustaining-discharge period and inputting a third sustaining discharge pulse and a fourth sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and said first common electrodes.	current voltage, a second alternating-current voltage, and a third alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said first alternating-current voltage is out of phase to said second alternating-current voltage, and is in phase to said third alternating-current voltage;
(d) providing an even-field sustaining-discharge period and inputting a third sustaining discharge pulse and a fourth sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and said first common electrodes	(d) making each of the voltage differences between said first common electrodes and the corresponding scanning electrodes larger than the reset threshold voltage;
	(e) sustaining a third positive voltage to each of said first common electrodes, and sequentially applying a third pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying a fourth pulse of positive voltage to said data electrodes according to the image data to be displayed;
	(f) sustaining a fourth positive voltage to each of said data electrodes, applying a fourth alternating-current voltage, a fifth alternating-current voltage, and a sixth alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said fourth alternating-current voltage is out of phase to said sixth alternating-current voltage, and is in phase to the fifth alternating-current voltage.

Simply stated, the rejection of claim 10 is based on an erroneous interpretation of claim 10 (wherein the element were interpreted to substantially correspond to the

elements of claim 1). Applicant respectfully requests reconsideration and withdrawal of the rejection for at least this reason. Similarly, the Office Action (in its rejection of claim 10) simply hasn't made an appropriate application of the prior art to the actual claimed features of claim 10.

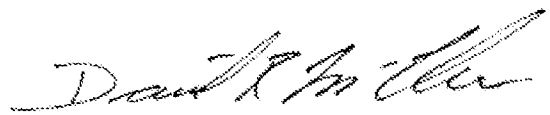
For at least these reasons, the rejection of claim 10 should be withdrawn. As claims 11-13 depend from claim 10, they define over the cited art for at least the same reasons.

CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

By: 

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